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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stefan L. Burtscher

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7590

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EXAMINER

KENNEDY, JOSHUA T

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

10/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,743	Applicant(s) BURTSCHER, STEFAN L	
	Examiner JOSHUA T. KENNEDY	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-19 have been examined.

Drawings

The drawings were received on 6/18/2009. These drawings are not acceptable. The cross-hatching of the layers 22, 32, 33 made of epoxy resin is still incorrect. See MPEP 608.02.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how adhesive bonding constitutes a “positive connection”. A positive connection is typically known in the art as an interlocking of two parts. In this case, there is no interlocking of any parts, and applying an adhesive would not facilitate any such interlocking.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8, 10, 11 and 15-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Oizumi et al (Japanese Patent Publication 2003/278314).

Regarding claim 1, Oizumi et al disclose an anchorage for at least one pre-tensioned or stressed tensile element, the anchorage comprising:

one or more wedges (2,4) having a first region near a load and a second region remote from the load (Fig 3);

an anchor body (3), wherein a tensile force is transmittable to the anchor body by means of the one or more wedges; and

wherein the one or more wedges have a wedge shape to slide along an inclined surface of the anchor body to force the one or more wedges against the at least one pre-tensioned or stressed tensile element (Fig 3), the one or more wedges comprising:

a first wedge-shaped layer (4; concrete) adjacent a second wedge shaped layer (2; metal) having modulus of elasticity that is lower compared to the modulus of elasticity of other parts of the anchorage including the second wedge-shaped layer (Concrete is known to have a lower modulus of elasticity than that of metals such as steel), wherein a greatest thickness of the first wedge-shaped layer (4), measured normal to the longitudinal axis of the tensile element, lies in the region of the anchorage which is near a load (Fig 3), wherein the first wedge-shaped layer lowers a stiffness of the one or more wedges in the first region near the load to more evenly distribute contact pressure on a contact area between the at least one pre-tensioned or stressed tensile element and the one or more wedges.

Regarding claim 2, Oizumi et al disclose pores (Fig 3, Examiner notes that concrete is comprised of pores and thus is considered to be a porous material) being arranged in the layer formed from the material having a lower modulus of elasticity to reduce the stiffness thereof in a direction normal to the longitudinal axis of the tensile element.

Regarding claim 3, it is the patentability of the product, and not recited process steps, that is to be determined in product-by-process claims irrespective of whether or not only

process has been recited. Accordingly, it is of little consequence how the layers of different moduli of elasticity were formed when layers of different moduli of elasticity are present. See MPEP § 2113.

Regarding claim 4, Oizumi et al disclose the anchor body (3) as a coupling for two tensile elements being provided with seats for wedges, the seats being are oriented opposite to each other (Fig 3).

Regarding claims 5 and 10, Oizumi et al disclose the layer formed from the material having a lower modulus of elasticity is connected to an adjacent layer having a higher modulus of elasticity via a non-positive or a positive connection comprising a profile with a counterprofile (Fig 3).

Regarding claims 6 and 11, Oizumi et al disclose a transmission of shearing force between the wedge and the tensile element is ensured by a non-positive connection or by form closure comprising friction/ the shaping of a profile (Fig 3).

Regarding claim 8, Oizumi et al disclose the anchorage wherein the wedge-shaped layer has a lower modulus of elasticity being formed by two partial wedge-shaped layers (4,5) with different moduli of elasticity.

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Regarding claim 15, Oizumi et al disclose an anchorage for at least one pre-tensioned or stressed tensile element, the anchorage comprising:

- an anchor body (3);

- a first wedge-shaped layer (4) having a wedge shape;

- a second wedge-shaped layer (2) adjacent the first wedge-shaped layer and having a wedge shape, the first and second wedge-shaped layers having a first regions near a load and a second region remote from the load;

- wherein a tensile force is transmittable to the anchor body by means of the first and second wedge shaped layers;

- wherein the first and second wedge-shaped layers and the anchor body include an inclined surface (Fig 3) to force the first and second wedge shaped layers against the at least one pre-tensioned or stressed tensile element (S), wherein the first wedge-shaped has a modulus of elasticity (concrete) that is lower compared to the modulus of elasticity of other parts of the anchorage including the second wedge-shaped layer (metal), wherein a greatest thickness of the first wedge-shaped layer, measured normal to the longitudinal axis of the tensile element, lies in the first region of the anchorage which is near the load and wherein a total thickness of the first and second wedge-shaped layers is smallest in the first region of the anchorage which is near the load (Fig 3).

Regarding claim 16, Oizumi et al disclose an anchorage wherein the first and second wedge-shaped layers form a wedge and the inclined surface is between the wedge and

the anchor body (Fig 3).

Regarding claim 17, Oizumi et al disclose an anchorage wherein the first wedge-shaped layer is part of the anchor body and the inclined surface is formed between the first and second wedge shaped layers (Fig 3).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oizumi et al.

Oizumi et al disclose the anchorage significantly as claimed (see above explanation in the Section 102(b) rejection), but do not disclose the ratio of the lower modulus of elasticity to the a higher modulus of elasticity is at least 1:2,at least 1:10, or in a range from 1:20 to 1:30. It is not inventive to state the optimum values of a thickness of the bearing portion. Although silent on the ratio of moduli of elasticity, the device of Oizumi et al inherently has an exact modulus of elasticity relative to the strength of connection desired. Through routine experimentation and optimization, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wedge layers of Oizumi et al in view to have the ratio of the lower modulus of elasticity to the a higher modulus of elasticity is at least 1:2,at least 1:10, or

in a range from 1:20 to 1:30 because this is merely the application of the of the expected level of skill on the part of one of ordinary skill producing expected and predictable results.

Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oizumi et al as applied to claims 1-6, 8, 10, 11, and 15-17 above, and further in view of Ozawa et al (US Patent 5,802,788).

Oizumi et al disclose the anchorage significantly as claimed, but do not disclose at least one of the wedge and the anchor body being formed from a material having the higher modulus of elasticity and is provided with filling materials that result in the higher modulus of elasticity, wherein the filling materials are formed from Al_2O_3 .

Ozawa et al teach a similar anchorage system having a wedge being formed with aluminum alloy "for capability of appropriate plastic deformation" (Col 9, Lines 7-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wedge of Oizumi et al to be provided with filling materials that result in the higher modulus of elasticity, wherein the filling materials are formed from Al_2O_3 as taught by Ozawa et al for capability of appropriate plastic deformation.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oizumi et al as applied to claims 1-6, 8, 10, 11, and 15-17 above, and further in view of Fenlin (US Patent 3,393,720).

As best understood, Oizumi et al disclose the anchorage significantly as claimed, but do not disclose the layer formed from the material having a lower modulus of elasticity being positively connected via adhesive bonding to an adjacent layer having a higher modulus of elasticity, though Oizumi et al do suggest a binding action between the two wedge members (Par. 23).

Fenlin teaches a similar wedging structure having adhesive placed on the wedge which "provides inherent lubricity between the [outer and inner wedge sections and] ...serves to intimately bond the contacting surfaces" (Col 6, Lines 29-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wedges of Oizumi et al to have an adhesive placed between them as taught by Fenlin to provide inherent lubricity between the outer and inner wedge sections to facilitate the initial connection and also serve to intimately bond the contacting surfaces once the strand has been tensioned.

Response to Arguments

Applicant's arguments filed 6/6/2009 have been fully considered but they are not persuasive.

As to the claims, Applicant argues:

"The Office Action asserts that Oizumi discloses that "the first wedge-shaped layer lowers a stiffness of the one or more wedges in the first region near the load," (Office Action, page 5). However, the Office Action has not cited, nor have Applicants found, any portion of Oizumi that discloses, teaches, or fairly suggests this element. Rather, Oizumi discloses, as shown above, that the sleeve is intended to replace a conventional metal sleeve, while maintaining sufficient

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strength to respond to the applied excessive forces. Although the Office Action asserts that the concrete main material 4 has a lower modulus of elasticity than a metal wedge 2 (see Office Action, page 4), stiffness is not merely a function of the modulus of elasticity of the material, but also includes dimensional aspects of an element. Because the purpose of Oizumi is to provide a new sleeve that functionally replaces a standard metal sleeve, Applicants respectfully submit that Oizumi does not disclose, teach, or fairly suggest that "the first wedge-shaped layer lowers a stiffness of the one or more wedges in the first region near the load," as recited, in part, by claim 1. Rather, Oizumi teaches away from this claim element because to lower the stiffness of sleeve 1 would defeat the intended purpose of Oizumi. Therefore, Oizumi does not disclose, teach, or fairly suggest this element and Applicant respectfully submits that Oizumi teaches away from any combination that teaches that "the first wedge-shaped layer lowers a stiffness of the one or more wedges in the first region near the load," as recited, in part, by claim 1." (page 11)

Examiner respectfully disagrees and reminds Applicant that by choosing to define an element functionally, applicant assumes a risk, that risk being that where the Patent and Trademark Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied upon. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Ludtke, 441 F.2d at 664, 169 USPQ at 566 (CCPA 1971); In re Schreiber, 128 F.3d at 1473, 44 USPQ2d 1429 (Fed. Cir. 1997). In the present case, Applicant has provided no evidence to prove that the anchorage of Oizumi et al lacks or is incapable of achieving the functionally defined limitations (lowering a stiffness of the one or more wedges in the first region near the load) set forth in the claims.

Examiner further notes that where the prior art reference is inherently capable of performing the function described in a functional limitation, such functional limitation does not define the claimed apparatus over such prior art reference, regardless of whether the prior art reference explicitly discusses such capacity for performing the recited function. In re Ludtke, 441 F.2d 660, 169 USPQ 563 (CCPA 1971). While Oizumi et al may intend to functionally replace a standard metal sleeve, different material characteristics (i.e. a lower modulus of elasticity) are inherently present as a result of the sleeve now being comprised of a concrete material. If this were to “defeat the intended purpose” of Oizumi, then the inventor surely would not have sought patent protection on it.

Applicant further argues:

“In addition, the Office Action asserts that Oizumi discloses the main material 4 “more evenly distribute[s] contact pressure on a contact area between the at least one pre-tensioned or stressed tensile element and the one or more wedges,” (Office Action, page 5). However, the Office Action has not cited, nor have Applicants found, any portion of Oizumi that discloses, teaches, or fairly suggests this claim element.” (Page 12)

Examiner respectfully disagrees and again reminds Applicant that by choosing to define an element functionally, applicant assumes a risk, that risk being that where the Patent and Trademark Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic

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relied upon. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Ludtke, 441 F.2d at 664, 169 USPQ at 566 (CCPA 1971); In re Schreiber, 128 F.3d at 1473, 44 USPQ2d 1429 (Fed. Cir. 1997). In the present case, Applicant has provided no evidence to prove that the anchorage of Oizumi et al lacks or is incapable of achieving the functionally defined limitations (even distribution of contact pressure on a contact area between the at least one pre-tensioned or stressed tensile element and the one or more wedges) set forth in the claims.

Applicant further argues:

"The Office Action asserts that Oizumi discloses "a first wedge-shaped layer (4; concrete) adjacent a second wedge shaped layer (2; metal)," (Office Action, page 4). However, Applicant respectfully submits that the main material 4 is not "adjacent" Oizumi's wedge 2, as recited, in part, by claim 1. Rather, Oizumi appears to disclose that "the inner circumference metal cylinder is formed all over the inner circumference of a main material 4" and appears to show that the inner circumference metal cylinder 5 entirely separates the main material 4 from the wedge 2 (paragraph 0015 and Figures 1-3)." (Page 12)

Examiner respectfully disagrees. Two members being 'adjacent' to one another does not require them to be abutting or in direct contact with each other, merely that they are close to each other.

Applicant finally argues:

"Furthermore, the Office Action has not cited, nor have Applicants found, any portion of Oizumi that discloses, teaches, or fairly suggests that the main material 4 is "shaped to slide along an inclined surface of the anchor body." Rather, Oizumi merely discloses that "[a]n anchor plate 3 intervenes between a sleeve 1 and the stationary- portion material K" and that "the tapered surface 3a... binds that peripheral end face [of metal cylinder 6] to it," (see paragraphs 0010 and 0023)." (Page 12)

Examiner respectfully disagrees and once again reminds Applicant that by choosing to define an element functionally, applicant assumes a risk, that risk being that where the Patent and Trademark Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied upon. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Ludtke, 441 F.2d at 664, 169 USPQ at 566 (CCPA 1971); In re Schreiber, 128 F.3d at 1473, 44 USPQ2d 1429 (Fed. Cir. 1997). In the present case, Applicant has provided no evidence to prove that the anchorage of Oizumi et al lacks or is incapable of achieving the functionally defined limitations (shaped to slide along an inclined surface of the anchor body) set forth in the claims. Even further, Examiner notes that Applicant references paragraph 10 which describes the embodiment shown in Figures 1-2 whereas Examiner is relying upon the embodiment of Fig 3. Examiner also notes that the text taken from paragraph 23 and further in paragraph 24 describes a wedging, hence "sliding" action of the two inclined faces of the wedges against one another.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA T. KENNEDY whose telephone number is (571)272-8297. The examiner can normally be reached on M-F: 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joshua T. Kennedy/
Examiner, Art Unit 3679
9/4/2009